

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A pump including a power screw and ~~at least one~~ a first idler screw which meshes with the power screw, the power screw and the first idler screw being rotatable in a housing, the first idler screw having ~~at least one~~ a first screw form including a generally helical groove and a generally helical land surface, the land surface having a first and a second edge portion, each of which is adjacent to one of the groove of the first screw form ~~or~~ and a groove of a second screw form, the distance between the land surface and a longitudinal axis of the first idler screw varying between the first edge portion and the second edge portion, the distance between the first edge portion and the longitudinal axis of the first idler screw being substantially constant over the length of the first screw form and the distance between the second edge portion and the longitudinal axis of the first idler screw being substantially constant over the length of the first screw form.

2. (Currently Amended) A pump according to claim 1 wherein the distance between the ~~or the at least one~~ land surface of the first screw form and a the longitudinal axis increases continuously from the first edge portion to the second edge portion.

3. (Currently Amended) A pump according to claim 1 including a power screw and a first idler screw which meshes with the power screw, the power screw and the first idler screw being rotatable in a housing, the first idler screw having a first screw form including a generally helical groove and a generally helical land surface, the land surface having a first and a second edge portion, each of which is adjacent to one of the groove of the first screw form ~~or~~ and a groove of a second screw form, the distance between the land surface and a longitudinal axis of the first idler screw varying between the first edge portion and the second edge portion, the distance between the first edge portion and the longitudinal axis of the first idler screw being substantially constant over the length of the first screw form and the distance between the second edge portion and the longitudinal axis of the first idler screw being substantially constant over the length of the first screw form

wherein the distance between the ~~or at least one~~ land surface of the first screw form and the longitudinal axis initially increases from the first edge portion to a position intermediate the first and second edge portions, and then remains generally constant from the intermediate position to the second edge portion.

4. (Original) A pump according to claim 3 wherein the intermediate position is approximately half-way between the first and second edge portions.

5. (Currently Amended) A pump according to claim 1 wherein the first idler screw is arranged so that the first edge portion leads the second edge portion as the first idler screw rotates in use.

6. (Currently Amended) A pump according to claim 1 wherein at least one of the first and/or the second edge portions include a radiussed lead-in to the ~~or an~~ corresponding adjacent one groove.

7. (Currently Amended) A pump according to claim 1 wherein the power screw includes at least one generally helical ridge which engages with the generally helical groove of at least one of the first idler screw or each and a second idler screw.

8. (Currently Amended) A pump according to claim 1 wherein ~~each~~ the second screw form of said first idler screw includes a generally helical land surface having a first and a second edge portion, each of which is adjacent to one of said groove of the first screw form and the groove of the second screw form, two generally helical grooves the grooves of the first and second screw forms of substantially the same pitch and two generally helical land surfaces, each land surface having a first and a second edge portion, each of which is adjacent to a groove, the distance between each the land surface of the second screw form and a the longitudinal axis of the idler screw varying between the first edge portion and the second edge portion of the land surface of the second screw form over at least part of the length of the first idler screw.

9. (Original) A pump according to claim 8 wherein the power screw includes two generally helical ridges of substantially the same pitch.

10. (Currently Amended) A pump according to claim 1 wherein the pump includes ~~two~~ a second idler screws, wherein the first and second idler screws are located at diametrically opposite sides of the power screw.

11. (Currently Amended) A pump according to claim 1
including a power screw and a first idler screw which meshes with
the power screw, the power screw and the first idler screw being
rotatable in a housing, the first idler screw having a first
screw form including a generally helical groove and a generally
helical land surface, the land surface having a first and a
second edge portion, each of which is adjacent to one of the
groove of the first screw form ~~or~~ and a groove of a second screw
form, the distance between the land surface and a longitudinal
axis of the first idler screw varying between the first edge
portion and the second edge portion, the distance between the
first edge portion and the longitudinal axis of the first idler
screw being substantially constant over the length of the first
screw form and the distance between the second edge portion and
the longitudinal axis of the first idler screw being
substantially constant over the length of the first screw form

wherein the difference in the distance between the
longitudinal axis of the first idler screw and the land surface
at the first edge portion and the second edge portion is up to 4%
of the largest distance between the longitudinal axis of the
first idler screw and the land surface.

12. (Currently Amended) A pump according to claim 1
wherein an end of the first ~~or each~~ idler screw is mounted in a
bearing provided in the housing.